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Dr. A. A. COMMON, LL.D., F.R.S., President, in the Chair.

Andrew Russell Forsyth, Sc.D., F.R.S., Sadlerian Professor of Pure Mathematics, Cambridge ;

John Willoughby Meares, Clive Hall, Shrewsbury ; and

William Willett, Junr., The Cedars, Chislehurst Common, Kent, and 2 Sloane Gardens, S.W.,

were balloted for and duly elected Fellows of the Society.

The following candidates were proposed for election as Fellows of the Society, the names of the proposers from personal knowledge being appended :

Antoine d'Abbadie, Membre de l'Académie des Sciences, 120 Rue du Bac, Paris (proposed by G. H. Darwin) ;

Loyal H. Bradford, of North Ferrisburgh, Vermont, U.S.A. (proposed by Lewis Swift) ; and

Oswald Thomas Tuck, Naval Instructor, School Ship *Conway*, Birkenhead (proposed by E. W. Maunder).

Seventy-six presents were announced as having been received since the last meeting, including, amongst others :—

T. G. Elger, *The Moon*, presented by the author ; Lund Observatory, *Observations de la Zone entre 35° et 40°*, presented by the Observatory ; twelve photographs of a globe of *Mars*, prepared from drawings made at the Lowell Observatory, Arizona, presented by Percival Lowell ; eight photographic enlargements of portions of the Moon, from negatives by Læwy and Puiseux,

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presented by Dr. Weinek; photographs of *Orion*, the Milky Way, &c. (negative, lantern slides, and enlargements), presented by Dr. Sheldon; lantern slide from negative of the Cluster in *Hercules*, presented by W. E. Wilson.

Answer to an Inquiry in the "Bulletin Astronomique" for May 1895, p. 233. By E. J. Stone, M.A., F.R.S., Radcliffe Observer.

In the *Bulletin Astronomique* for May 1895 there is a short notice of my paper, "On Some Points connected with the Integration of the Differential Equations of the Relative Motions of Material Systems" (which appeared in the *Monthly Notices* for 1894 June), which very clearly and concisely states the fundamental point of my paper to be the unchangeableness of the fundamental constant, f ; but adds: "Il serait à désirer que M. Stone formulât d'une manière nette et précise les critiques qu'il sous-entend en parlant de conditions incompatibles entre la variable représentant le temps et les observations."

I have no difficulty in answering this very reasonable request.

If we denote the geocentric co-ordinates of the Sun under the usual forms

$$2\pi i + \odot = i + nt + \lambda t^2 \text{ \&c.} + \int A \sin(at + \beta),$$

$$\frac{1}{r} = \text{\&c.}$$

$$\beta = \text{\&c.}$$

where \int denotes a definite number of periodical terms, then in the mathematical investigations of the disturbances of the elliptic motions the effects of all the terms in the geocentric co-ordinates of the Sun, including those which are themselves due to planetary and lunar disturbance, are duly investigated subject to the condition

$$\delta[n(t + \tau)] = 0,$$

or, with *exact* values of t and a definite epoch,

$$\delta n(t + \tau) = 0,$$

and included in the different theoretical expressions of the geocentric co-ordinates of the Moon and planets.

If any long inequality,

$$P \cdot \sin(pt + q),$$

has been omitted in the expressions for \odot , $\frac{1}{r}$, and β , the theoretical determination of the disturbing effects cannot be regarded as complete until those due to this term have been investigated, and, if found sensible, included in the theoretical expressions of the Moon and planets.